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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/988,785	KIKUCHI, TSUNEYUKI
	Examiner Alicia Baturay	Art Unit 2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 April 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-45 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-45 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 November 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 09/988,785.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06082004</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed 7 April 2005.
2. Claims 1-45 were amended.
3. Claims 1-45 are pending in this Office Action.

Response to Amendment

4. The objection to the specification regarding the abstract was addressed and is withdrawn.
5. The objection to the specification was addressed and is withdrawn.
6. The objection to the claims was addressed and is withdrawn.
7. The rejection of claims 14, 17-23, 25, 26, 39 and 41 under 35 U.S.C. § 112, 2nd paragraph regarding insufficient antecedent bases were addressed and are withdrawn.
8. Applicant's amendments and arguments with respect to claims 1-45 filed on 7 April 2004 have been fully considered but they are deemed to be moot in view of the new grounds of rejection. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 3-11, 13, 14, 16-23, 25-33, 35-43 and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanimoto et al. (U.S. 6,075,776) and further in view of McNamara (U.S. 6,262,976).

Tanimoto teaches the invention substantially as claimed including managing a correspondence relationship between a server and a terminal and detecting terminal disconnection (Tanimoto, Abstract).

11. As to claim 1, Tanimoto teaches a communications system comprising: a server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65); a client terminal (Tanimoto, Fig. 1, element 101; col. 3, lines 48-55); and a communications network which interconnects the server and the client terminal (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65); the client terminal including means for establishing communication with the server (Tanimoto, col. 3, lines 48-55). Decision means for monitoring a connection state between the client terminal and the server and deciding whether or not the connection state corresponds to at least one of the disconnection conditions; and disconnection means for disconnecting the client terminal when it is decided that the connection state corresponds to the at least one of the disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach the use of separate and distinct disconnection conditions.

However, McNamara teaches a plurality of separate and distinct disconnection conditions regarding disconnection of client terminals (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

12. As to claim 3, Tanimoto teaches a communications system comprising:

A server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65); a client terminal (Tanimoto, Fig. 1, element 101; col. 3, lines 48-55); and a communications network which interconnects the server and the client terminal (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65); the client terminal including means for transmitting a user identifier to issue a log-in request to the server (Tanimoto, col. 5, lines 28-39); the server including: means for logging in client terminals in response to log-in requests from the client terminals (Tanimoto, col. 5, lines 40-44); in conjunction with the user identifiers; retrieval means for retrieving at least one of the plurality of disconnection conditions based on user identifier transmitted from the client terminal; and disconnection means for monitoring a connection state between the client terminal and the server and disconnecting the client terminal when the connection state corresponds to the at least one of the disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach the use of separate and distinct disconnection conditions.

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However, McNamara teaches a memory for storing a plurality of separate and distinct disconnection conditions regarding the disconnection of the client terminals (McNamara, col. 36, lines 42-54)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

13. As to claim 4, Tanimoto teaches the invention described in claim 3, including the communications system where the disconnection means comprises:

Decision means for monitoring said connection state between the client terminal and the server and deciding whether or not the connection state corresponds to the at least one of the disconnection conditions; and client disconnection means for disconnecting the client terminal when the connection state corresponds to the at least one of the disconnection conditions (Tanimoto, col. 6, lines 55-67).

14. As to claim 5, Tanimoto teaches the invention described in claim 3, including the communications system where the memory stores a maximum allowable time period between logging-in and disconnection of the client terminal, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection when a time period that has elapsed after a log-in operation to the server by the client

terminal exceeds a maximum allowable time period stored in the memory (Tanimoto, col. 6, lines 55-67).

15. As to claim 6, Tanimoto teaches the invention described in claim 3, including the communications system where the memory stores a maximum allowable non-communication time period for which data is not transmitted or received by the client terminal in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection when a non-communication time period of the client terminal exceeds the maximum allowable non-communication time period stored in the memory (Tanimoto, col. 6, lines 55-67).

16. As to claim 7, Tanimoto teaches the invention described in claim 6, including the communications system where the server is connected to an application server which stores an application supplied to the client terminal (Tanimoto, col. 5, lines 3-11); where the maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated between the client terminal and the application server before the client terminal is to be disconnected; and where the disconnection means comprises means for monitoring arrival times of packets that have a transmission destination address or a reception destination address that is the same as an address of the client terminal, and for performing disconnection of the client terminal when a time period elapsed after the arrival time exceeds the maximum allowable non-communication time period stored in the memory (Tanimoto, col. 6, lines 55-67).

17. As to claim 8, Tanimoto teaches the invention described in claim 3, including the communications system where the memory stores a maximum allowable simultaneous jointer count that specifies a number of client terminals that can be simultaneously connected to the server before the client terminal is to be disconnected, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection when the number of client terminals connected to the server exceeds the maximum allowable simultaneous jointer count stored in the memory (Tanimoto, col. 6, lines 55-67).

18. As to claim 9, Tanimoto teaches the invention described in claim 3, including the communications system (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).
Tanimoto does not explicitly teach the specification of a level of allowable traffic for the client terminal in a period of time and a disconnection of the terminal when this level is exceeded.

However, McNamara teaches a memory stores a maximum allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection of the client terminal when a level of actual traffic for the client terminal exceeds the maximum allowable traffic value stored in the memory (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection

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condition that occurs if a level of traffic for a particularly client is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

19. As to claim 10, Tanimoto teaches the invention described in claim 3, including the communications system (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).

Tanimoto does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara teaches the memory storing a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection of the client terminal when a data volume of packets having a transmission or reception destination address the same as an address of the client terminal exceeds the specific volume (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

20. As to claim 11, Tanimoto teaches the invention described in claim 3, including the communications system where the server is connected to an application server which stores an application supplied from the client terminal (Tanimoto, col. 5, lines 3-11); and where the

memory stores an address of the application server and a timeout time, in conjunction with the user identifier; and where the disconnection means comprises means for monitoring an arrival time of a packet stored in the memory, the packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from the arrival time, the timeout time being stored in the memory in conjunction with the user identifier, the memory belonging to a group of a matching address and a matching service identifier and when the timing of the packet matching a group of an address and a service identifier is not received from an opposite party (Tanimoto, col. 6, lines 55-67).

21. As to claims 13, Tanimoto teaches the invention described in claim 3, including the communications system where the memory stores a line disconnecting order in conjunction with the user identifier; and where the disconnection means is means for performing disconnection of the client terminal in accordance with the line disconnecting order stored in the memory (Tanimoto, col. 7, lines 1-11).

22. As to claim 14, Tanimoto teaches a communications method suitable for a communications system, the communications system comprising a server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65), a client terminal (Tanimoto, Fig. 1, element 101; col. 3, lines 48-55), and a communications network which interconnects the server and the client terminal (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65), the client terminal performing the steps of: connecting the client terminal to the server and establishing communications (Tanimoto, col. 3, lines 48-55); monitoring a connection state between the

client terminal and the server; the disconnection condition regarding that connection stored in the memory is broken; and disconnecting the client terminal when it is decided that the connection state corresponds to the at least one of the plurality of disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach deciding whether the connection state of the terminal corresponds to one of separate and distinct disconnection conditions.

However, McNamara teaches deciding whether or not the connection state corresponds to at least one of a plurality of separate and distinct disconnection conditions (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

23. As to claim 16, Tanimoto teaches a communications method suitable for a communications system, the communications system comprising a server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65), a client terminal (Tanimoto, Fig. 1, element 101; col. 3, lines 48-55), and a communications network which interconnects the server and the client terminal (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65), the client terminal performing the step of: transmitting a user identifier to issue a log-in request to the server (Tanimoto, col. 5, lines 28-39); the server performing the steps of: logging in the client terminal in response to the log-in request from the client terminal (Tanimoto, col. 5, lines 40-

44); that is associated with the user identifier; monitoring a connection state of the client terminal; and disconnecting the client terminal when the connection state corresponds to the at least one of the plurality of disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach the use of separate and distinct disconnection conditions.

However, McNamara teaches a retrieving, based on the user identifier transmitted from the client terminal, at least one of a plurality of separate and distinct disconnection conditions (McNamara, col. 36, lines 42-54)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

24. As to claim 17, Tanimoto teaches the invention described in claim 16, including the communications method where the disconnection is performed when a time period elapsed from a log-in operation to the server from the client terminal exceeds a maximum allowable time period that is associated with the user identifier (Tanimoto, col. 6, lines 55-67).

25. As to claim 18, Tanimoto teaches the invention described in claim 16, including the communications method the disconnection is performed when a non-communication time period of the client terminal, during which data is not transmitted or received from the server,

exceeds a maximum allowable non-communication time period that is associated with the user identifier (Tanimoto, col. 6, lines 55-67).

26. As to claim 19, Tanimoto teaches the invention described in claim 18, including the communications method where the server is connected to an application server which stores an application supplied to the client terminal (Tanimoto, col. 5, lines 3-11); and where the non-communication time period is a time period for which a packet is not communicated between the client terminal and the application server; and where an arrival time of a packet being in a group having a same transmission destination address and a same reception address is monitored, and the disconnection is performed when a monitored time period elapsed from the arrival time exceeds the maximum allowable non-communication time period (Tanimoto, col. 6, lines 55-67).
27. As to claim 20, Tanimoto teaches the invention described in claim 16, including the communications method where the disconnection is performed when a number of client terminals simultaneously connected to the server exceeds a maximum allowable simultaneous joiner count that is associated with the user identifier (Tanimoto, col. 6, lines 55-67).
28. As to claim 21, Tanimoto teaches the invention described in claim 16, including the communications method (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).

Tanimoto does not explicitly teach the specification of a level of allowable traffic for the client terminal in a period of time and a disconnection of the terminal when this level is exceeded.

However, McNamara teaches where disconnection is performed when a level of actual traffic from the client to the server in a predetermined time period exceeds a maximum allowable traffic value that is associated with the user identifier (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a level of traffic for a particularly client is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

29. As to claim 22, Tanimoto teaches the invention described in claim 16, including the communications system (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).

Tanimoto does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara where the disconnection is performed when a data volume of packets being in a group having the same a transmission or reception destination address as an address of the client terminal exceeds a specific volume amount that is associated with the user identifier (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection

condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

30. As to claim 23, Tanimoto teaches the invention described in claim 16, including the communications method where the server is connected to an application server which stores an application supplied from the client terminal (Tanimoto, col. 5, lines 3-11); and where the method comprises the step of monitoring an arrival time of a packet, the packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from the arrival time, the timeout time being associated with the user identifier (Tanimoto, col. 6, lines 55-67).
31. As to claim 25, Tanimoto teaches the invention described in claim 16, including the communications method where the disconnecting is performed in accordance with a line disconnecting order that is associated with the user identifier (Tanimoto, col. 7, lines 1-11).
32. As to claim 26, Tanimoto teaches a server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65) comprising: means for logging in client terminals in response to log-in requests from the client terminals (Tanimoto, col. 5, lines 40-44); retrieval means for retrieving at least one of the plurality of disconnection conditions based on a user identifier transmitted from a client terminal; and disconnection means for monitoring a connection state between the client terminal and the server and for disconnecting the client terminal when the connection state

corresponds to the at least one of the plurality of disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach the use of a memory for storing separate and distinct disconnection conditions.

However, McNamara teaches a memory for storing a plurality of separate and distinct disconnection conditions regarding disconnection of the client terminals in conjunction with the user identifiers (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

33. As to claim 27, Tanimoto teaches the invention described in claim 26, including the server where the memory stores a maximum allowable time period between logging-in and disconnection of the client terminal, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection when a time period that has elapsed after a log-in operation to the server by the client terminal exceeds a maximum allowable time period stored in the memory (Tanimoto, col. 6, lines 55-67).

34. As to claim 28, Tanimoto teaches the invention described in claim 26, including the server where the memory stores a maximum allowable non-communication time period for which data is not transmitted or received by the client terminal in conjunction with the user

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identifier; and where the disconnection means comprises means for performing disconnection when a non-communication time period of the client terminal exceeds the maximum allowable non-communication time period stored in the memory (Tanimoto, col. 6, lines 55-67).

35. As to claim 29, Tanimoto teaches the invention described in claim 28, including the server where the server is connected to an application server which stores an application supplied to the client terminal (Tanimoto, col. 5, lines 3-11); where the maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated between the client terminal and the application server before the client terminal is to be disconnected; and where the disconnection means comprises means for monitoring arrival times of packets that have a transmission destination address or a reception destination address that is the same as an address of the client terminal, and for performing disconnection of the client terminal when a time period elapsed after the arrival time exceeds the maximum allowable non-communication time period stored in the memory (Tanimoto, col. 6, lines 55-67).

36. As to claim 30, Tanimoto teaches the invention described in claim 26, including the server where the memory stores a maximum allowable simultaneous jointer count that specifies a number of client terminals that can be simultaneously connected to the server before the client terminal is to be disconnected, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection when the

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number of client terminals connected to the server exceeds the maximum allowable simultaneous jointer count stored in the memory (Tanimoto, col. 6, lines 55-67).

37. As to claims 31, Tanimoto teaches the invention described in claim 26, including the server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65).

Tanimoto does not explicitly teach the specification of a level of allowable traffic for the client terminal in a period of time and a disconnection of the terminal when this level is exceeded.

However, McNamara teaches where a memory stores a maximum allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection of the client terminal when a level of actual traffic for the client terminal exceeds the maximum allowable traffic value stored in the memory (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a level of traffic for a particularly client is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

38. As to claim 32, Tanimoto teaches the invention described in claim 26, including the server (Tanimoto, Fig. 1, element 700; col. 3, lines 63-65).

Tanimoto does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara teaches where the memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with the user identifier; and where the disconnection means comprises means for performing disconnection of the client terminal when a data volume of packets having a transmission or reception destination address the same as an address of the client terminal exceeds the specific volume (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

39. As to claim 33, Tanimoto teaches the invention described in claim 26, including where the server is connected to an application server which stores an application supplied from the client terminal (Tanimoto, col. 5, lines 3-11); and where the memory stores an address of the application server and a timeout time, in conjunction with the user identifier; and the disconnection means comprises means for monitoring an arrival time of a packet stored in the memory, the packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from the arrival time, the timeout time being stored in the memory in conjunction with the user identifier, the memory

belonging to a group of a matching address and a matching service identifier and when the timing of the packet matching a group of an address and a service identifier is not received from an opposite party (Tanimoto, col. 6, lines 55-67).

40. As to claim 35, Tanimoto teaches the invention described in claim 26, including the server where the memory stores a line disconnecting order in conjunction with the user identifier; and where the disconnection means is means for performing disconnection of the client terminal in accordance with the line disconnecting order stored in the memory (Tanimoto, col. 7, lines 1-11).

41. As to claim 36, Tanimoto-McNamara discloses a recording medium in which a program is stored, the program causing a server to execute a process, the process comprising the steps of:

Logging in a client terminal in response to a log-in request from the client terminal (Tanimoto, col. 5, lines 40-44); retrieving, based on a user identifier transmitted from the client terminal, at least one of the plurality of disconnection conditions associated with the user identifier; monitoring a connection state between the client terminal and the server; and disconnecting the client terminal when the connection state corresponds to the at least one of the disconnection conditions (Tanimoto, col. 6, lines 55-67).

Tanimoto does not explicitly teach the use of a memory for storing separate and distinct disconnection conditions.

However, McNamara teaches storing a plurality of separate and distinct disconnection conditions relating to disconnection of client terminals (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use of separate and distinct disconnection conditions. One would be motivated to do so in order to increase the scalability of networks without adding congestion to any one link.

42. As to claim 37, Tanimoto teaches the invention described in claim 36, including the recording medium where the step of disconnecting is performed when a time period that has elapsed after the time at which the client terminal logs in to the server exceeds a maximum allowable time period between logging-in and disconnection, the maximum allowable time period being stored in conjunction with the user identifier (Tanimoto, col. 6, lines 55-67).
43. As to claim 38, Tanimoto teaches the invention described in claim 36, including the recording medium where the step of disconnecting is performed when a non-communication time period of the client terminal exceeds a maximum allowable non-communication time period stored that is associated with the user identifier (Tanimoto, col. 6, lines 55-67).
44. As to claim 39, Tanimoto teaches the invention described in claim 38, including the recording medium the process further comprises the step of monitoring arrival times of packets being in a group having a same transmission or reception destination address as an address of the client terminal, and where the step of disconnecting is performed when the

non-communication time period of the client terminal based on the arrival time exceeds the maximum allowable non-communication time (Tanimoto, col. 6, lines 55-67).

45. As to claim 40, Tanimoto teaches the invention described in claim 36, including the recording medium where the step of disconnecting is performed when a number of the client terminals connected to the server exceeds a maximum allowable simultaneous jointer count that is associated with the user identifier (Tanimoto, col. 6, lines 55-67).

46. As to claim 41, Tanimoto teaches the invention described in claim 36, including the recording medium (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).

Tanimoto does not explicitly teach the specification of a level of allowable traffic for the client terminal in a period of time and a disconnection of the terminal when this level is exceeded.

However, McNamara teaches the step of disconnecting is performed when a level of traffic for the client terminal exceeds a maximum allowable traffic value that specifies a maximum level of allowable traffic for the client terminal in a predetermined time period, the maximum allowable traffic value being associated with the user identifier (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a level of traffic for a particularly client is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

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47. As to claim 42, Tanimoto teaches the invention described in claim 36, including the recording medium (Tanimoto, Fig. 1, element 40; col. 3, lines 48-55, 63-65).

Tanimoto does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara teaches the step of disconnecting is performed when the data volume of packets being in a group having a same a transmission or reception destination address exceeds a specific volume of data selected from the group of transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, each being associated with a user identifier (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto in view of McNamara in order to make use a disconnection condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

48. As to claim 43, Tanimoto teaches the invention described in claim 36, including the communications system where the server is connected to an application server which stores an application supplied from the client terminal (Tanimoto, col. 5, lines 3-11); and where the memory stores an address of the application server and a timeout time, in conjunction with the user identifier; and where the disconnection means comprises means for monitoring an arrival time of a packet stored in the memory, the packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from the arrival time, the timeout time being stored in the memory in conjunction with the

user identifier, the memory belonging to a group of a matching address and a matching service identifier and when the timing of the packet matching a group of an address and a service identifier is not received from an opposite party (Tanimoto, col. 6, lines 55-67).

49. As to claim 45, Tanimoto teaches the invention described in claim 36, including the communications system where the memory stores a line disconnecting order in conjunction with the user identifier; and where the disconnection means is means for performing disconnection of the client terminal in accordance with the line disconnecting order stored in the memory (Tanimoto, col. 7, lines 1-11).
50. Claims 2, 12, 15, 24, 34, and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanimoto in view of McNamara and further in view of Rao (U.S. 6,789,118).

51. As to claim 2, the combination of Tanimoto and McNamara teaches the invention described in claim 1, including a communication system, where the disconnection means comprises means for disconnecting a client terminal (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach the disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of the client terminals have a same disconnection condition of the plurality of disconnection conditions (Rao, col. 16, lines 49-53).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

52. As to claim 12, the combination of Tanimoto and McNamara teaches the invention described in claim 3, including a communication system, where the disconnection means comprises means for disconnecting a first client terminal (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach the disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of the client terminals have a same disconnection condition of the plurality of disconnection conditions (Rao, col. 16, lines 49-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

53. As to claim 15, the combination of Tanimoto and McNamara teaches the invention described in claim 14, including a communication method, where a client terminal is disconnected (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach where a client terminal logged in at an earliest time is disconnected when two or more client terminals have a same disconnection condition (Rao, col. 16, lines 49-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

54. As to claim 24, the combination of Tanimoto and McNamara teaches the invention described in claim 16, including a communication method, where a client terminal is disconnected (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach where a client terminal logged in at an earliest time is disconnected when two or more client terminals have a same disconnection condition (Rao, col. 16, lines 49-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

55. As to claim 34, the combination of Tanimoto and McNamara teaches the invention described in claim 26, including a server, where the disconnection means comprises means for disconnecting a client terminal (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach the disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of the client terminals have a same disconnection condition of the plurality of disconnection conditions (Rao, col. 16, lines 49-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

56. As to claim 44, the combination of Tanimoto and McNamara teaches the invention described in claim 36, including a recording medium, where the process further comprises the step of disconnecting from a first client terminal (Tanimoto, col. 6, lines 55-67).

The combination of Tanimoto and McNamara does not explicitly teach means for disconnecting the first client terminal logged in for the longest time.

However, Rao does teach the step of disconnecting from a first client terminal logged in at an earliest time when two or more client terminals satisfy a same disconnection condition of the plurality of disconnection conditions (Rao, col. 16, lines 49-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tanimoto-McNamara with Rao in order to accommodate the increase in the number and the variety of network traffic with efficiency.

Response to Arguments

57. Applicant's arguments filed 7 April 2005 have been fully considered, but they are not persuasive for the reasons set forth below.

58. ***Applicant Argues:*** Applicant states "Tanimoto only detects whether a terminal has been disconnected and does not disconnect the terminal."

In Response: The examiner respectfully submits that Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

59. ***Applicant Argues:*** Applicant states "Tanimoto does not have a memory for storing information about a plurality of separate and distinct disconnection conditions."

In Response: The examiner respectfully submits that Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

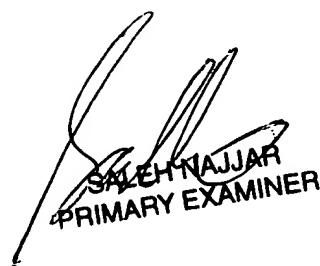
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
June 21, 2005



SALEH NAJJAR
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "SALEH NAJJAR". Below the signature, the words "PRIMARY EXAMINER" are written in capital letters.